ABSTRACT
OF
WARD NO. 08

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BRUHAT BANGALORE MAHANAGARA PALIKE

PREPARATION OF DPR FOR PACKAGE NO. 03

(PACKAGE CONSISTS OF 21 WORKS IN WARD NO 08 AND WARD NO 09)

Sl No.	List of Roads
1	Improvements and Asphalting to Roads and Drains at Virupakshapura and Surrounding Area in Ward No. 09 Vidyaranyapura Sub Division.
2	Improvements and Asphalting to Roads and Drains at Thindlu and Surrounding area in Ward No. 09 Vidyaranyapura Sub Division.
3	Improvements and Asphalting to Roads and Drains at Canara Bank layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.
4	Improvements and Asphalting to Roads and Drains at Sir MV layout, Siddivinayaka, Ananda layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.
5	Improvements and Asphalting to Main Road in Kempegowdanagara in Ward No. 09 Vidyaranyapura Sub Division.
6	Improvements and Asphalting to Roads and Drains at HMT Layout, IECHS Layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.
7	Improvements and Asphalting to Roads and Drains at Telecom Layout, Ganeshnagara and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.
8	Improvements and Asphalting to Roads and Drains at NTI Layout, Defence Layout, BEL Layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.
9	Providing and Installing LED Street Lights with Timer and fittings in Ward No. 09 Vidyaranyapura Sub Division.
10	Improvements and Asphalting to Roads and Drains at Krishna Temple area, Deshabandunagara, Chikkavenkatappa Layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.

ABSTRACT ESTIMATE

Sl. No.	Description of Work	Unit	Quantity	Rate in Figures	Rate in Words
1	**Earthwork in surface excavation in ordinary soil for leveling and lowering the ground manually (other than foundation of buildings, culverts, roads drains and trenches of pipe line and cables) and removing the excavated stuff to a distance not exceeding 50m and lift up lift 1.5, excavated surface leveled and neatly dressed disposed earth to be leveled after breaking of clods and neatly dressed as per specifications and as per the directions of the Engineer-in-charge of the work .**	**Cum**	**7122.84**	**166.42**	**1185383.299**
a	Improvements and Asphalting to Roads and Drains at Virupakshapura and Surrounding Area in Ward No. 09 Vidyaranyapura Sub Division.		740.60		
b	Improvements and Asphalting to Roads and Drains at Thindlu and Surrounding area in Ward No. 09 Vidyaranyapura Sub Division.		863.83		
c	Improvements and Asphalting to Roads and Drains at Canara Bank layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		442.90		
d	Improvements and Asphalting to Roads and Drains at Sir MV layout, Siddivinayaka, Ananda layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		984.66		
e	Improvements and Asphalting to Main Road in Kempegowdanagara in Ward No. 09 Vidyaranyapura Sub Division.		509.85		

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f	Improvements and Asphalting to Roads and Drains at HMT Layout, IECHS Layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		1155.37		
g	Improvements and Asphalting to Roads and Drains at Telecom Layout, Ganeshnagara and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		651.81		
h	Improvements and Asphalting to Roads and Drains at NTI Layout, Defence Layout, BEL Layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		981.11		
j	Improvements and Asphalting to Roads and Drains at Krishna Temple area, Deshabandunagara, Chikkavenkatappa Layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		792.70		
2	**Providing and laying in position plain cement concrete of mix 1:4:8(M7.5)with OPC cement @ 180kgs, with 40mm and down size graded granite metal coarse aggregates @0.85cum and fine aggregtes @ 0.57cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM of machinery, curing complete as per specifications and as per the directions of the Engineer-in-charge of the work .(Road)**	**Cum**	**13.20**	**5159.02**	**68099.064**
j	Improvements and Asphalting to Roads and Drains at Krishna Temple area, Deshabandunagara, Chikkavenkatappa Layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		13.20		
3	**Removing B.S.slab of Drain and stacking as per the directions of the Engineer-in-charge of the work .**	**Sqm**	**2166.28**	**65.72**	**142367.7902**
a	Improvements and Asphalting to Roads and Drains at Virupakshapura and Surrounding Area in Ward No. 09 Vidyaranyapura Sub Division.		265.12		
b	Improvements and Asphalting to Roads and Drains at Thindlu and Surrounding area in Ward No. 09 Vidyaranyapura Sub Division.		169.03		
c	Improvements and Asphalting to Roads and Drains at Canara Bank layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		149.35		
d	Improvements and Asphalting to Roads and Drains at Sir MV layout, Siddivinayaka, Ananda layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		329.33		
e	Improvements and Asphalting to Main Road in Kempegowdanagara in Ward No. 09 Vidyaranyapura Sub Division.		163.88		
f	Improvements and Asphalting to Roads and Drains at HMT Layout, IECHS Layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		331.17		
g	Improvements and Asphalting to Roads and Drains at Telecom Layout, Ganeshnagara and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		210.61		
h	Improvements and Asphalting to Roads and Drains at NTI Layout, Defence Layout, BEL Layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		292.85		

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j	Improvements and Asphalting to Roads and Drains at Krishna Temple area, Deshabandunagara, Chikkavenkatappa Layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		254.95		
4	**Removing and refixing stone slabs of drains and pointing in CM (1:3) as per the directions of the Engineer-in-charge of the work .**	**Sqm**	**853.05**	**80.56**	**68721.85301**
b	Improvements and Asphalting to Roads and Drains at Thindlu and Surrounding area in Ward No. 09 Vidyaranyapura Sub Division.		399.86		
f	Improvements and Asphalting to Roads and Drains at HMT Layout, IECHS Layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		179.30		
h	Improvements and Asphalting to Roads and Drains at NTI Layout, Defence Layout, BEL Layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		194.88		
j	Improvements and Asphalting to Roads and Drains at Krishna Temple area, Deshabandunagara, Chikkavenkatappa Layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		79.02		
5	**Providing granite slabs of selected quality roughly dressed havinf a size of 7.5 cms thick and fixed in cement mortar (1:6) including fixing curing ete., complete as per the directions of the Engineer-in-charge of the work .**	**Sqm**	**142.03**	**665.68**	**94547.39578**
b	Improvements and Asphalting to Roads and Drains at Thindlu and Surrounding area in Ward No. 09 Vidyaranyapura Sub Division.		66.50		
f	Improvements and Asphalting to Roads and Drains at HMT Layout, IECHS Layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		29.88		
h	Improvements and Asphalting to Roads and Drains at NTI Layout, Defence Layout, BEL Layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		32.48		
j	Improvements and Asphalting to Roads and Drains at Krishna Temple area, Deshabandunagara, Chikkavenkatappa Layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		13.17		
6	**Providing granite slabs of selected quality roughly dressed havinf a size of 10 cms thick and fixed in cement mortar (1:6) including fixing curing ete., complete as per the directions of the Engineer-in-charge of the work .(Road)**	**Sqm**	**2061.72**	**825.74**	**1702446.902**
a	Improvements and Asphalting to Roads and Drains at Virupakshapura and Surrounding Area in Ward No. 09 Vidyaranyapura Sub Division.		265.12		
b	Improvements and Asphalting to Roads and Drains at Thindlu and Surrounding area in Ward No. 09 Vidyaranyapura Sub Division.		102.39		
c	Improvements and Asphalting to Roads and Drains at Canara Bank layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		149.35		
d	Improvements and Asphalting to Roads and Drains at Sir MV layout, Siddivinayaka, Ananda layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		329.33		

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e	Improvements and Asphalting to Main Road in Kempegowdanagara in Ward No. 09 Vidyaranyapura Sub Division.		163.88		
f	Improvements and Asphalting to Roads and Drains at HMT Layout, IECHS Layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		301.28		
g	Improvements and Asphalting to Roads and Drains at Telecom Layout, Ganeshnagara and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		210.61		
h	Improvements and Asphalting to Roads and Drains at NTI Layout, Defence Layout, BEL Layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		260.37		
j	Improvements and Asphalting to Roads and Drains at Krishna Temple area, Deshabandunagara, Chikkavenkatappa Layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		279.40		
7	**Earthwork excavation by manual means in ordinary soil involving an average horizontal throw upto 2meters and an average lift upto 1.5 m, excavated surface leveled and sides neatly dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specifications and as per the directions of the Engineer-in-charge of the work .**	**Cum**	**295.11**	**86.92**	**25651.126**
a	Improvements and Asphalting to Roads and Drains at Virupakshapura and Surrounding Area in Ward No. 09 Vidyaranyapura Sub Division.		6.87		
b	Improvements and Asphalting to Roads and Drains at Thindlu and Surrounding area in Ward No. 09 Vidyaranyapura Sub Division.		16.49		
c	Improvements and Asphalting to Roads and Drains at Canara Bank layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		0.81		
e	Improvements and Asphalting to Main Road in Kempegowdanagara in Ward No. 09 Vidyaranyapura Sub Division.		39.47		
f	Improvements and Asphalting to Roads and Drains at HMT Layout, IECHS Layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		0.86		
j	Improvements and Asphalting to Roads and Drains at Krishna Temple area, Deshabandunagara, Chikkavenkatappa Layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		230.61		
8	**Lead for disposal of earth shall be payable at Carriage rates (Lead & Lift) by mechanical means including loading and unloading up to 15kms as per the directions of the Engineer-in-charge of the work .**	**Cum**	**7731.15**	**122.96**	**950622.6339**
a	Improvements and Asphalting to Roads and Drains at Virupakshapura and Surrounding Area in Ward No. 09 Vidyaranyapura Sub Division.		**747.48**		
b	Improvements and Asphalting to Roads and Drains at Thindlu and Surrounding area in Ward No. 09 Vidyaranyapura Sub Division.		**880.32**		
c	Improvements and Asphalting to Roads and Drains at Canara Bank layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		**443.72**		

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d	Improvements and Asphalting to Roads and Drains at Sir MV layout, Siddivinayaka, Ananda layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		984.66		
e	Improvements and Asphalting to Main Road in Kempegowdanagara in Ward No. 09 Vidyaranyapura Sub Division.		549.32		
f	Improvements and Asphalting to Roads and Drains at HMT Layout, IECHS Layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		1156.23		
g	Improvements and Asphalting to Roads and Drains at Telecom Layout, Ganeshnagara and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		651.81		
h	Improvements and Asphalting to Roads and Drains at NTI Layout, Defence Layout, BEL Layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		1294.31		
j	Improvements and Asphalting to Roads and Drains at Krishna Temple area, Deshabandunagara, Chikkavenkatappa Layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		1023.31		
9	**Providing,laying, spreading and compacting crushed stone aggregates of granite/trap/ basalt to wet mix macadam specification including pre mixing the Material with water at OMC in mechanical mix plant carriage of mixed material by tipper to site, laying in uniform layers with paver in sub-base/ base course on well prepared surface and compacting with vibratory roller to achieve the desired density. complete as per specifications and as per the directions of the Engineer-in-charge of the work .**	**Cum**	**255.64**	**1768.08**	**451998.8596**
a	Improvements and Asphalting to Roads and Drains at Virupakshapura and Surrounding Area in Ward No. 09 Vidyaranyapura Sub Division.		6.87		
b	Improvements and Asphalting to Roads and Drains at Thindlu and Surrounding area in Ward No. 09 Vidyaranyapura Sub Division.		16.49		
c	Improvements and Asphalting to Roads and Drains at Canara Bank layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		0.81		
f	Improvements and Asphalting to Roads and Drains at HMT Layout, IECHS Layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		0.86		
j	Improvements and Asphalting to Roads and Drains at Krishna Temple area, Deshabandunagara, Chikkavenkatappa Layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		230.61		
10	**Scarifying bituminous course 50mm to 75mm thick along with premix carpet / surface dressing by road roller attached with scarifier without disturbing the base and stacking the debris including cost of all labour charges, HOM of machineries complete as per specifications and as per the directions of the Engineer-in-charge of the work .**	**Sqm**	**4655.37**	**30.74**	**143106.0738**
b	Improvements and Asphalting to Roads and Drains at Thindlu and Surrounding area in Ward No. 09 Vidyaranyapura Sub Division.		**3365.73**		

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g	Improvements and Asphalting to Roads and Drains at Telecom Layout, Ganeshnagara and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		1289.64		
11	**Cleaning the existing WBM Road surface including removing of binding materials and other foreign matter with wire brushes and small picks sweeping with brooms or soft brushes and finally dusting with old gunny bags and bar or compressed air to receive bituminous treatment including cost of all materials, labhour, HOM of machineries complet as per specifications and as per the directions of the Engineer-in-charge of the work .**	**Sqm**	**5760.13**	**13.78**	**79374.6355**
a	Improvements and Asphalting to Roads and Drains at Virupakshapura and Surrounding Area in Ward No. 09 Vidyaranyapura Sub Division.		29.89		
b	Improvements and Asphalting to Roads and Drains at Thindlu and Surrounding area in Ward No. 09 Vidyaranyapura Sub Division.		3437.41		
c	Improvements and Asphalting to Roads and Drains at Canara Bank layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		3.54		
e	Improvements and Asphalting to Main Road in Kempegowdanagara in Ward No. 09 Vidyaranyapura Sub Division.		171.60		
f	Improvements and Asphalting to Roads and Drains at HMT Layout, IECHS Layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		3.75		
g	Improvements and Asphalting to Roads and Drains at Telecom Layout, Ganeshnagara and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		1111.31		
j	Improvements and Asphalting to Roads and Drains at Krishna Temple area, Deshabandunagara, Chikkavenkatappa Layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		1002.64		
12	**Providing and applying primer coat with SS bitumen emulsion on prepared surface of granular Base such as WBM WMM including clearing of road surface and spraying primer at the rate of 0.60 kglsqm using mechanical means complete as per specifications and as per the directions of the Engineer-in-charge of the work .**	**Sqm**	**5760.13**	**27.56**	**158749.271**
a	Improvements and Asphalting to Roads and Drains at Virupakshapura and Surrounding Area in Ward No. 09 Vidyaranyapura Sub Division.		29.89		
b	Improvements and Asphalting to Roads and Drains at Thindlu and Surrounding area in Ward No. 09 Vidyaranyapura Sub Division.		3437.41		
c	Improvements and Asphalting to Roads and Drains at Canara Bank layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		3.54		
e	Improvements and Asphalting to Main Road in Kempegowdanagara in Ward No. 09 Vidyaranyapura Sub Division.		171.60		
f	Improvements and Asphalting to Roads and Drains at HMT Layout, IECHS Layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		3.75		
g	Improvements and Asphalting to Roads and Drains at Telecom Layout, Ganeshnagara and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		1111.31		

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j	Improvements and Asphalting to Roads and Drains at Krishna Temple area, Deshabandunagara, Chikkavenkatappa Layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		1002.64		
13	**Providing and laying dense graded bituminous macadam using crushed aggregates of specified grading, premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH table 500-10 complete in all respects complete as per specifications.. MORTH Specification No. 507 - using 40/60 TPH capacity H.M.P. with Mechanical paver Gr-II (50 mm to 75 mm) with 4.5 % VG-30 Bitumen as per the directions of the Engineer-in-charge of the work .**	**Cum**	**302.41**	**7120.02**	**2153143.838**
a	Improvements and Asphalting to Roads and Drains at Virupakshapura and Surrounding Area in Ward No. 09 Vidyaranyapura Sub Division.		1.57		
b	Improvements and Asphalting to Roads and Drains at Thindlu and Surrounding area in Ward No. 09 Vidyaranyapura Sub Division.		180.46		
c	Improvements and Asphalting to Roads and Drains at Canara Bank layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		0.19		
e	Improvements and Asphalting to Main Road in Kempegowdanagara in Ward No. 09 Vidyaranyapura Sub Division.		9.01		
f	Improvements and Asphalting to Roads and Drains at HMT Layout, IECHS Layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		0.20		
g	Improvements and Asphalting to Roads and Drains at Telecom Layout, Ganeshnagara and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		58.34		
j	Improvements and Asphalting to Roads and Drains at Krishna Temple area, Deshabandunagara, Chikkavenkatappa Layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		52.64		
14	**Cleaning the existing black topped surface with brooms,soft brushes and finally dusting with old gunny bags and/or compressed air to receive bituminous treatment including cost of all materials,labhour, HOM of machineries complete as per specifications and as per the directions of the Engineer-in-charge of the work .**	**Sqm**	**74143.76**	**3.18**	**235777.1536**
a	Improvements and Asphalting to Roads and Drains at Virupakshapura and Surrounding Area in Ward No. 09 Vidyaranyapura Sub Division.		**8279.13**		
b	Improvements and Asphalting to Roads and Drains at Thindlu and Surrounding area in Ward No. 09 Vidyaranyapura Sub Division.		**9567.32**		
c	Improvements and Asphalting to Roads and Drains at Canara Bank layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		**4153.74**		
d	Improvements and Asphalting to Roads and Drains at Sir MV layout, Siddivinayaka, Ananda layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub		**10601.97**		

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e	Improvements and Asphalting to Main Road in Kempegowdanagara in Ward No. 09 Vidyaranyapura Sub Division.		6329.60		
f	Improvements and Asphalting to Roads and Drains at HMT Layout, IECHS Layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		10456.38		
g	Improvements and Asphalting to Roads and Drains at Telecom Layout, Ganeshnagara and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		8709.54		
h	Improvements and Asphalting to Roads and Drains at NTI Layout, Defence Layout, BEL Layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		7715.13		
j	Improvements and Asphalting to Roads and Drains at Krishna Temple area, Deshabandunagara, Chikkavenkatappa Layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		8330.96		
15	**Providing and applying tack coat using 80/100 grade bitumen (VG10) on prepared black topped surfaces at 2.5 Kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications and as per the directions of the Engineer-in-charge of the work .**	**Sqm**	**74143.76**	**12.72**	**943108.6145**
a	Improvements and Asphalting to Roads and Drains at Virupakshapura and Surrounding Area in Ward No. 09 Vidyaranyapura Sub Division.		8279.13		
b	Improvements and Asphalting to Roads and Drains at Thindlu and Surrounding area in Ward No. 09 Vidyaranyapura Sub Division.		9567.32		
c	Improvements and Asphalting to Roads and Drains at Canara Bank layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		4153.74		
d	Improvements and Asphalting to Roads and Drains at Sir MV layout, Siddivinayaka, Ananda layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		10601.97		
e	Improvements and Asphalting to Main Road in Kempegowdanagara in Ward No. 09 Vidyaranyapura Sub Division.		6329.60		
f	Improvements and Asphalting to Roads and Drains at HMT Layout, IECHS Layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		10456.38		
g	Improvements and Asphalting to Roads and Drains at Telecom Layout, Ganeshnagara and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		8709.54		
h	Improvements and Asphalting to Roads and Drains at NTI Layout, Defence Layout, BEL Layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		7715.13		
j	Improvements and Asphalting to Roads and Drains at Krishna Temple area, Deshabandunagara, Chikkavenkatappa Layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		8330.96		

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16	**Providing and laying bituminous concrete 30-40 mm compacted thickness with VG30 Bitumen grade using 40-60 HMP using crushed aggregates of grading II, premixed with bituminous binder at 5.4% of mix and filler, transporting the hot mix to work site, laying with a mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction complete in all respects as per specifications and as per the directions of the Engineer-in-charge of the work .**	**Cum**	**3281.45**	**8118.54**	**26640570.87**
a	Improvements and Asphalting to Roads and Drains at Virupakshapura and Surrounding Area in Ward No. 09 Vidyaranyapura Sub Division.		372.33		
b	Improvements and Asphalting to Roads and Drains at Thindlu and Surrounding area in Ward No. 09 Vidyaranyapura Sub Division.		420.96		
c	Improvements and Asphalting to Roads and Drains at Canara Bank layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		182.76		
d	Improvements and Asphalting to Roads and Drains at Sir MV layout, Siddivinayaka, Ananda layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		466.49		
e	Improvements and Asphalting to Main Road in Kempegowdanagara in Ward No. 09 Vidyaranyapura Sub Division.		278.50		
f	Improvements and Asphalting to Roads and Drains at HMT Layout, IECHS Layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		460.08		
g	Improvements and Asphalting to Roads and Drains at Telecom Layout, Ganeshnagara and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		387.26		
h	Improvements and Asphalting to Roads and Drains at NTI Layout, Defence Layout, BEL Layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		339.47		
j	Improvements and Asphalting to Roads and Drains at Krishna Temple area, Deshabandunagara, Chikkavenkatappa Layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		373.60		
17	**Providing Plastic to Bituminous concrete @ 8%**	**Kg**	**30714.36**	**28.62**	**879044.9237**
a	Improvements and Asphalting to Roads and Drains at Virupakshapura and Surrounding Area in Ward No. 09 Vidyaranyapura Sub Division.		3484.99		
b	Improvements and Asphalting to Roads and Drains at Thindlu and Surrounding area in Ward No. 09 Vidyaranyapura Sub Division.		3940.21		
c	Improvements and Asphalting to Roads and Drains at Canara Bank layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		1710.68		
d	Improvements and Asphalting to Roads and Drains at Sir MV layout, Siddivinayaka, Ananda layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		4366.31		
e	Improvements and Asphalting to Main Road in Kempegowdanagara in Ward No. 09 Vidyaranyapura Sub Division.		2606.78		

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f	Improvements and Asphalting to Roads and Drains at HMT Layout, IECHS Layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		4306.35		
g	Improvements and Asphalting to Roads and Drains at Telecom Layout, Ganeshnagara and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		3624.74		
h	Improvements and Asphalting to Roads and Drains at NTI Layout, Defence Layout, BEL Layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		3177.40		
j	Improvements and Asphalting to Roads and Drains at Krishna Temple area, Deshabandunagara, Chikkavenkatappa Layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		3496.89		
18	**Road Marking with Hot Applied Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface:- Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications and as per the directions of the Engineer-in-charge of the work .**	**Sqm**	**2879.06**	**542.72**	**1562525.614**
a	Improvements and Asphalting to Roads and Drains at Virupakshapura and Surrounding Area in Ward No. 09 Vidyaranyapura Sub Division.		337.39		
b	Improvements and Asphalting to Roads and Drains at Thindlu and Surrounding area in Ward No. 09 Vidyaranyapura Sub Division.		385.12		
c	Improvements and Asphalting to Roads and Drains at Canara Bank layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		165.94		
d	Improvements and Asphalting to Roads and Drains at Sir MV layout, Siddivinayaka, Ananda layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		434.58		
e	Improvements and Asphalting to Main Road in Kempegowdanagara in Ward No. 09 Vidyaranyapura Sub Division.		227.59		
f	Improvements and Asphalting to Roads and Drains at HMT Layout, IECHS Layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		420.14		
g	Improvements and Asphalting to Roads and Drains at Telecom Layout, Ganeshnagara and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		263.47		
h	Improvements and Asphalting to Roads and Drains at NTI Layout, Defence Layout, BEL Layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		289.30		
j	Improvements and Asphalting to Roads and Drains at Krishna Temple area, Deshabandunagara, Chikkavenkatappa Layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		355.53		

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19	**Dismantling of cement concrete pavement by mechanical means using pneumatic tools, breaking to pieces not exceeding 0.02 cum in volume and stock piling at designated locations and disposal of dismantled materials stacking serviceable and unserviceable materials seperately complete as per specification and as per the directions of the Engineer-in-charge of the work .**	**Cum**	**313.20**	**827.86**	**259285.752**
h	Improvements and Asphalting to Roads and Drains at NTI Layout, Defence Layout, BEL Layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		313.20		
20	**Construction of dry lean cement concrete mix CC1:5:10 with OPC cement @160Kgs, with 25mm and down size graded granite metal coarse aggregate at 0.86cum and fine aggregates @ 0.58cum Sub- base over a prepared sub-grade with (coarse and fine aggregate conforming to IS: 383) aggregate cement ratio not to exceed 15:1. Aggregate gradation after blending to be as per Table 600-1, cement content not to be less than 160 kg/ cum, optimum moisture content to be determined during trial length construction, concrete strength not to be less than 10 Mpa at 7 days, mixed in a batching plant, transported to site, laid with a paver with electronic sensor, compacting with 8-10 tonnes vibratory roller, finishing and curing complete as per specifications and as per the directions of the Engineer-in-charge of the work .**	**Cum**	**313.20**	**3986.66**	**1248621.912**
h	Improvements and Asphalting to Roads and Drains at NTI Layout, Defence Layout, BEL Layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		313.20		
21	**Cement concrete pavement.Construction of un-reinforced plain cement concrete pavement, thickness as per design, over a prepared sub base with OPC cement or any other type as per clause 1051.2.2 design mix M20/M30 , with 25mm and down size graded granite metal coarse aggregates and fine aggregtes , with superplastisiser @3lts confirming to IS9103-1999 Reaffirmed-2008 , mixed in a concrete mixer of not less than 0.6 cum capacity and appropriate weigh batcher as per approved mix design, laid in approved fixed side form work (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the form work as per drawing). Spreading the concrete with shovels, rackers compacted using needle, screed and plate vibrator and finished in a continuous operation including provision of contraction, expansion, construction and longitudinal joints including groove cutting charges, joint filler, separation membrane, selant primer, joint sealant, admixtures as approved, curing compound, finishing to lines and grades as per drawing complete as per specifications and as per the directions of the Engineer-in-charge of the work .**	**Cum**	**328.86**	**6217.96**	**2044838.326**

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h	Improvements and Asphalting to Roads and Drains at NTI Layout, Defence Layout, BEL Layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		328.86		
22	**Road Marking with Hot Applied Thermoplastic Compound with Reflectrising Glass Beads on Conrete Surface:- Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms and 2Ltr of Primer per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications and as per the directions of the Engineer-in-charge of the work .**	**Sqm**	**92.80**	**685.82**	**63644.096**
h	Improvements and Asphalting to Roads and Drains at NTI Layout, Defence Layout, BEL Layout and Surrounding areas in Ward No. 09 Vidyaranyapura Sub Division.		92.80		
23	**LED Street light.Supply of LED Streetlight with pressure die cast aluminum housing body with optimal heat sink for better thermal dissipation. Diffuser with Injection moulded & is made of polycarbonate material with high transmission index, delivering superior light output. Rated life Burning Hrs 50000 hr @ Lumen Maintenance of 70%. CCT > 5500K, IP 66 optical and electrical compartment & impact resistance of complete luminare > IK08. Power Factor >0.9 with mains Current should not be greater than 0.1A to 0.7A & Surge Protection- Min 4KV along with Over voltage/Overload, short circuit/ miswiring protection. Compatible for pole mounting with outer dia of 40mm to 50mm. Universal Voltage driver to operate wide voltage range from 100V to 270V 50/60Hz application. Over load & Short circuit protection ensures reliable operation in spite of problem in output side. Compliance to IS 10322/IEC 60598, LM 79 & LM 80 Adherence with RoHS. UL approved MCPCB. Top access street light with single screw to ensure ease of maintenance at the sight site location with minimized minimal tools. LED Light fixture with ..... W System Power consumption. LED Efficiency>130lm/w at 1W & FixtureEfficiency >80lm/w with nominal CRI >75. Luminaire manufacturer should have in-house facility**	**Each**	**88.00**	**18720.00**	**1647360**
i	Providing and Installing LED Street Lights with Timer and fittings in Ward No. 09 Vidyaranyapura Sub Division.		**88.00**		
24	**Supplying and Fixing of..... mm dia class A GI pipe bracket up to 2 mtrs long bent at suitable angle and fixing to this bracket 1x40/2x40 watts fluorescent tube street light fitting of all capacities to GI or CI or rail or RCC pole / wall using suitable clamps, bolts, and nuts and wiring using suitable capacity wires. Using 32mm dia G.I.pipe as per the directions of the Engineer-in-charge of the work .**	**Each**	**135.00**	**893.00**	**120555**
i	Providing and Installing LED Street Lights with Timer and fittings in Ward No. 09 Vidyaranyapura Sub Division.		**135.00**		

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25	**Wiring for lighting/power circuit using one of PVC insulated 1100v grade stranded Aluminium unsheathed wire single core/multi core cable in open or consealed system of wiring. a)4 sqmm. as per the directions of the Engineer-in-charge of the work .**	**Each**	**440.00**	**7.50**	**3300**
i	Providing and Installing LED Street Lights with Timer and fittings in Ward No. 09 Vidyaranyapura Sub Division.		440.00		
26	**Supplying of 1.1 KV LT UG cable having aluminum conductor PVC insulated, extruded inner sheathed, galvanized, steel strip (except 2CX10Sq.mm wire armoured) confirming to IS-3975:1990 (No. of Strip indicated in GTP) & extruded PVC outer sheathed armoured cable with specified IS-1554 Part-1:1988 & confirming to GTP of ROUP-A.3.5 core 25sqmm as per the directions of the Engineer-in-charge of the work .**	**Per Mtr**	**150.00**	**165.60**	**24840**
i	Providing and Installing LED Street Lights with Timer and fittings in Ward No. 09 Vidyaranyapura Sub Division.		150.00		
27	**Labour charges for laying of 1.1 KV class UG cable in existing trench GI pipe / stoneware pipe / on wall / on pole as required.In existing trench/duct.25 sqmm to 75 sqmm as per the directions of the Engineer-in-charge of the work .**	**Per Mtr**	**150.00**	**34.80**	**5220**
i	Providing and Installing LED Street Lights with Timer and fittings in Ward No. 09 Vidyaranyapura Sub Division.		150.00		
28	**Thiristor based single/ Three phase smart street light control and monitoring system Remotely control and and monitorable smart street light system by using web or mobile application .smart control system has hardware ruggedness over field issues like line cross, line short, lighting and any other irregularities in voltage. It has some features like 1.Remote lighting management.2.Precise lighting turnoff.3.Load ballancing.4.Load power regulation.5.Status tracking. It works on the basis of some of these features 1) Main Control Unit (Mother board) : Handles controlling , data handling and other communication process. 2) Communication unit: GSM/GPRS quad bandwith RS232 interface wireless communication unit 3) Gate Driver Unit: Firing angle controllable board for driving the thyristor 4) Switching Thyristor: SCR 110 AMPS dual thyristor modules for switching 5) Embedded Firmware: Firmware to control , handle , process the data and Communicate it wirelessly.6) Metal Enclosure : IP66 weather prof metal enclosure.7) Transformers: Customized step down transformers for various purposes.8) Wiring and other device assembly components.**	**Each**	**22.00**	**51500.00**	**1133000**
i	Providing and Installing LED Street Lights with Timer and fittings in Ward No. 09 Vidyaranyapura Sub Division.		**22.00**		

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29	**Supplying tinned copper lugs and crimping and wiring to terminal point for wire of the following sizes25 sqmm Long Barrel as per the directions of the**	**Each**	**55.00**	**20.59**	**1132.45**
i	Providing and Installing LED Street Lights with Timer and fittings in Ward No. 09 Vidyaranyapura Sub Division.		55.00		
				Sub Total	**44037037.46**
	Preperation of DPR And Project management Consultancy Charges(2% of estimated cost)				900000
	Miscellenious and rounding				62963
				TOTAL AMOUNT	**45000000**
	RUPEES FOUR CRORE AND FIFTY LAKHS ONLY				

AE-9

Assistant Executive Engineer
Vidyaranyapura Sub Division
BBMP, Bangalore - 97

Executive Engineer
Byatarayanapura Division
Yalahanka Zone, B.B.M.P.
Bangalore-560092

Technical Sanction
Accorded For RS 4.5 crore
Head of A/C P3158
CER NO TS44-53/17-18 Dt 29/01/18

JA

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